Gender in Mental Health Research
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WHO Library Cataloguing-in-Publication Data

Patel, Vikram.
Gender in mental health research / by Patel Vikram.

(Gender and health research series)


ISBN 92 4 159253 2 (NLM classification: W 84.3)
ISSN 1813-2812

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Printed in Italy
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Acknowledgments

This document was prepared for the WHO Gender and Health Research Series by Dr Vikram Patel, Reader in International Mental Health, London School of Hygiene & Tropical Medicine, London, England, and Sangath (Society for Child Development and Family Guidance) Goa, India. Dr Patel expresses his thanks to the Wellcome Trust and MacArthur Foundation for their generous support for his research on gender and mental health in India.

The Gender and Health Research Series was developed by the Department of Gender, Women and Health (GWH), under the supervision of Dr Claudia García-Moreno and with support from Dr Salma Galal.

GWH gratefully acknowledges the valuable comments received from: Dr Jill Astbury, University of Melbourne, Melbourne, Australia; Dr Shekhar Saxena, Department of Mental Health and Substance Abuse (MSD) at WHO, and would like to thank Ann Morgan for copy-editing this series.
The Gender and Health Research Series has been developed by the Department of Gender, Women and Health (GWH), with assistance from many other WHO departments, in order to address some of the main issues involved in integrating gender considerations into health research. The current paper on mental health constitutes one of the booklets in this series.

Sex and gender are both important determinants of health. Biological sex and socially-constructed gender interact to produce differential risks and vulnerability to ill health, and differences in health-seeking behaviour and health outcomes for women and men. Despite widespread recognition of these differences, health research has hitherto, more often than not, failed to address both sex and gender adequately.

In applied health research, including the social sciences, the problem has traditionally been viewed as one of rendering and interpreting sex differentials in data analysis and exploring the implications for policies and programmes. However, examining the gender dimensions of a health issue involves much more than this; it requires unravelling how gender roles and norms, differences in access to resources and power, and gender-based discrimination influence male and female health and well-being.

Integrating gender considerations in health research contributes to better science and more focused research, and, consequently, to more effective and efficient health policies and programmes. With these ambitions in mind, the objectives of The Gender and Health Research Series are to:

- raise awareness of the need to integrate gender in health research;
- provide practical guidance on how to do this; and
- identify policies and mechanisms that can contribute to engendering health research.

The series is aimed at researchers, research coordinators, managers of research institutions, and research funding agencies. It comprises booklets covering both a general introduction to engendering the research process as well as topic-specific issues such as lung cancer, tuberculosis, and mental health. The research series will be extended to other health topics in time.

Each booklet will review the particular health issue from a gender perspective, identify best practices in addressing gender in research and the gaps in gendered research, and make recommendations to address those gaps.
Mental health disorders make a sizeable contribution to the global burden of disease, affecting some 450 million people worldwide, yet the resources devoted to mental health problems in most parts of the world are grossly inadequate. The primary objective of this paper is to argue for a greater emphasis on gender issues in mental health research. Although overall there is little difference between men and women in the prevalence of mental health problems, there are marked male:female differentials in the prevalence of specific disorders, especially the more common ones. Both depression and eating disorders exhibit a marked female excess, whereas substance abuse disorders are more prevalent in men. Men have higher rates of completed suicide but women have higher rates of attempted suicide. In analysing the role played by gender in shaping these prevalence patterns, an attempt is also made to explore how gender factors might interact to influence certain risk factors, help-seeking behaviour, treatment and care, outcome and finally the impact of mental illness. The paper also identifies gaps in the current knowledge base and recommends a number of strategies for integrating a gender perspective in future mental health research.
# List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>Attention deficient hyperactivity disorder</td>
</tr>
<tr>
<td>AUD</td>
<td>Alcohol Use Disorder</td>
</tr>
<tr>
<td>DALYs</td>
<td>Disability-adjusted life years</td>
</tr>
<tr>
<td>EAT</td>
<td>Eating Attitudes Test</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human immunodeficiency virus/acquired immunodeficiency syndrome</td>
</tr>
<tr>
<td>LEDS</td>
<td>Bedford Life Events and Difficulties Scale</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>YLDs</td>
<td>Years lived with disability</td>
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</table>
1. Introduction

Mental disorders are now widely recognized as a major contributor to the global burden of disease. In 2000, suicide ranked as the thirteenth leading cause of death, accounting for 815,000 deaths or 1.5% of all deaths worldwide. Just over a quarter of these deaths occurred in young adult males (i.e., those aged 15-44 years) (WHO, 2002). In terms of ill-health and disability, the impact of poor mental health is even greater: according to recent WHO estimates, nearly one-third of all years lived with disability (YLDs) worldwide can be attributed to neuropsychiatric conditions (i.e., mental disorders and neurological disorders combined) (WHO, 2001b).

Overall, there is very little difference in the prevalence of mental disorders between men and women. To make such a sweeping generalization, however, is to grossly oversimplify the situation. There are in fact marked male:female differences in the prevalence of certain mental disorders. In light of the universal acknowledgement of gender as a core issue for health and development (see Box 1, page 6), this paper explores to what extent sex (i.e., biological factors) and gender (i.e., socially-constructed factors) influence not just the prevalence of mental health disorders, but also how such factors interact to shape help-seeking behaviour, care, outcome and impact of mental illness. For example, gender-based factors such as unemployment, marital arrangements and the lethality of suicide methods, have all been identified as significant in terms of their influence on the rates of suicide and attempted suicide. Gender factors have also been invoked to explain why women are more likely than men to suffer from depression, whereas men are more likely to abuse alcohol. Paradoxically, it appears that socially-constructed factors act to produce a greater impact of mental illness on women, but may also contribute – in specific instances – to a more favourable outcome.

This document is divided into four main sections. A brief overview of the global burden of mental disorders, which is aimed specifically at those readers who do not have a specialist background in mental health, follows this introduction (see section two).

Section three outlines the main differences between men and women in the prevalence of various mental health disorders, including their risk for suicide, summarizing what is currently known about the role of gender as a determinant of poor mental health. Section four considers gender issues in the context of the treatment and care of the mentally ill, and in so doing, highlights the enormous gap between the need for mental health service provision and the resources available in most countries. Section five identifies the gaps in our current knowledge base and suggests ways of making mental health research more gender-sensitive. Finally, a set of specific recommendations for future research is provided by way of a conclusion.
Sex is the term used to distinguish men and women on the basis of their biological characteristics. Gender on the other hand refers to those distinguishing features that are socially constructed. Gender influences the control men and women have over the determinants of their health, for example, their economic position and social status, and their access to resources. Gender configures both the material and symbolic positions that men and women occupy in the social hierarchy, and shapes the experiences that condition their lives. Gender is a powerful social determinant of health that interacts with other variables such as age, family structure, income, education and social support, and with a variety of behavioural factors.

What then do we mean by gender-sensitive research and why is it considered to be so important? Research that fulfils this objective includes considerations of gender at all levels of the research process, from commissioning and study design through to dissemination of the results. Moreover, sex and gender must be identified as key variables, in all measures, reported separately and the differences discussed (Doyal, 2002).

Health research that is gender sensitive is necessary because sex and gender rank among the key factors, alongside socioeconomic status, ethnicity and age, that determine the health of women and men. Sex and gender affect biological vulnerability, exposure to health risks, experiences of disease and disability, and access to medical care and public health services. Research which is gender in-sensitive may result in study design which is unable to differentiate between women and men in the identification of key findings and their policy implications. Gender-sensitive research, on the other hand, is more likely to lead to improved outcomes in treatment and preventative interventions (Doyal, 2002).

The role of gender in public health is now widely acknowledged and is a core component of many health programmes, both international and national. Sex and gender as determinants of health, and as components of a conceptual framework for health research, are discussed in more detail in the accompanying booklet in this WHO Gender and Health Research Series.
2. The global burden of mental disorders

At the outset, it is essential to recognize that the term, "mental illness" encompasses a broad spectrum of disorders, which differ vastly from one another in terms of their distribution, symptoms, causes, outcomes

Table 1
Broad categories of mental disorders

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe mental disorders</strong></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>A disorder which is often chronic and characterized by odd beliefs (delusions), hallucinations and a marked change in behaviour.</td>
</tr>
<tr>
<td>Bipolar affective disorder</td>
<td>A disorder that causes severe mood swings.</td>
</tr>
<tr>
<td>Brief psychotic disorders</td>
<td>These are disorders that are brief in duration (lasting up to a month), sudden in onset and associated with severe behavioural disturbance. Organic causes, such as brain infections, may be responsible in some cases.</td>
</tr>
<tr>
<td>Common mental disorders</td>
<td>The most commonly occurring type of mental disorder. Depression can occur at any stage of the lifecycle but its impact can be very different during certain stages, such as in the months after childbirth (postnatal depression).</td>
</tr>
<tr>
<td>Common mental disorders (including depression, anxiety, panic attacks, phobias and medically unexplained physical symptoms)</td>
<td></td>
</tr>
<tr>
<td>Substance abuse</td>
<td>Includes alcohol, tobacco, and drug abuse.</td>
</tr>
<tr>
<td>Mental disorders in the elderly</td>
<td>Includes Alzheimer's disease, a brain disease that typically affects people aged over 60 years.</td>
</tr>
<tr>
<td>Mental disorders in childhood</td>
<td>Includes a variety of problems such as autism, hyperactivity, depression and learning disabilities.</td>
</tr>
<tr>
<td>Other disorders</td>
<td>Includes eating disorders and personality disorders; these are best described in industrialized cultures and countries.</td>
</tr>
</tbody>
</table>
and treatments. For convenience, mental health disorders can be grouped into six main categories (see Table 1, previous page).

During the course of the last 5-10 years, the publication of a series of reports on global health issues (Murray & Lopez, 1996; Institute of Medicine, 2001), including WHO’s *World health report 2001* (WHO, 2001b), have served to focus attention on the scale and public health implications of mental health problems. Not only is the prevalence of mental disorders high – some 450 million people worldwide are believed to be affected in some way (WHO, 2001b) – but the fact that most conditions go untreated, are often chronic in course and thus interfere with the ability of the affected individual to lead a productive and satisfying life, means that mental disorders are associated with extremely high rates of ill-health and disability. Figure 1 (see page 9) shows that neuropsychiatric conditions (mental disorders and neurological disorders together) are responsible for nearly one third of all years lived with disability (YLDs) worldwide. Depression and alcohol use disorders alone account for more than 20% of this total.

Globally-averaged data mask pronounced regional variations in the disease burden of mental disorders. Worldwide, neuropsychiatric disorders account for 12% of the total number of disability-adjusted life years (DALYs) lost, but when broken down on a regional basis, the proportion ranges from a low of 4% in Africa to a high of 24% in the Americas (WHO, 2001b). Not surprisingly, there is a great inequity in the regional distribution of mental health research; a recent review of six leading psychiatric journals found that only 6% of the literature was derived from Africa, Asia or Latin America, which, together, account for over 90% of the global population (Patel & Sumathipala, 2001).

The burden of mental illness is especially great in those aged 15-44 years, typically the most economically-productive age group in any community. Among men in this age group, four out of the five leading causes of YLDs are mental disorders (see Figure 2a, page 10). Depression and alcohol use disorders together account for nearly one quarter of all YLDs in this population group. Similarly, three out of the five leading causes of YLDs among women are mental disorders, with depression being by far the greatest single cause of disability in women aged between 15 and 44 years (see Figure 2b, page 10).

There is considerable evidence to suggest that some mental disorders, for example, depression, are more common among those who are living in poverty, implying that the burden of mental disorders is greater for the more economically vulnerable sections of the population (Patel & Kleinmann, 2003). Since the overwhelming majority of those living in poverty are women and children, it becomes almost impossible to give an adequate account of the role of poverty in mental health without referring to gender.

Apart from being a direct cause of disability, poor mental health is a risk factor for a variety of other health problems and conditions. Mental disorders often co-exist with other health problems and are known to worsen
the outcomes of other medical conditions. For instance, depression increases the mortality rate associated with cardiac disease (Penninx et al., 2001). Mental disorders are also associated with increased mortality. Alcohol use disorders, for example, are implicated in more than one million deaths annually, with most victims dying in their young adulthood (WHO, 1999). Data from some countries in Eastern Europe (such as the Russian Federation) show that all-cause mortality, especially in men, has risen since the economic crises of the mid-1990s; evidence suggests that increased alcohol consumption has contributed to this increased mortality (Men et al., 2003).

Self-inflicted injuries and suicide represent perhaps the most serious outcomes of mental health disorders. Suicide is one of the world's leading killers; although ranked 13th overall, in young adults (i.e. 15-34 year-olds) suicide is among the top three causes of death. In some parts of rural China, suicide is the leading cause of death in young women, while in eastern Europe, suicide is the second leading cause of death (after accidents) in young men (WHO, 2001b).

Suicide deaths are, however, only part of the problem; each person who takes their own life leaves behind many others – family and friends – whose lives are profoundly affected, both emotionally and economically, by such events. Moreover, in addition to those who are successful in their attempt to kill themselves, there are many more who are not, and whose injuries are often serious enough to require medical attention. Among 15-44 year-olds, self-inflicted injuries rank sixth in the list of causes of ill-health and disability (WHO, 2002).

Figure 1: Neuropsychiatric conditions as a proportion of all years of life lived with disability (YLDs)

![Figure 1: Neuropsychiatric conditions as a proportion of all years of life lived with disability (YLDs)](image)

Figure 2a: The top five leading causes of Years Lived with Disability (YLDs) among 15-44 year-old men in the world

<table>
<thead>
<tr>
<th>Condition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use Disorder</td>
<td>13.9</td>
</tr>
<tr>
<td>Unipolar Major Depression</td>
<td>10.1</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>5</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>5</td>
</tr>
<tr>
<td>Iron-deficiency anaemia</td>
<td>4.20</td>
</tr>
</tbody>
</table>


Figure 2b: The top five leading causes of Years Lived with Disability (YLDs) among 15-44 year-old women in the world

<table>
<thead>
<tr>
<th>Condition</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron-deficiency anaemia</td>
<td>18.6</td>
</tr>
<tr>
<td>Unipolar Major Depression</td>
<td>5.4</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>4.8</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>4.4</td>
</tr>
<tr>
<td>Obstructed Labour</td>
<td>4.4</td>
</tr>
</tbody>
</table>


Statistics on mental disorders as a group conceal the considerable differences that exist between men and women in the prevalence of specific types of mental disorders and at different stages of the life-cycle (Table 2). The mental disorders of childhood, for instance, tend to be far more prevalent in boys, but in later life women are more likely than men to suffer from poor mental health. This is particularly true of problems such as depression and eating disorders. The exception is substance abuse, for which rates are more than three times higher in adult men than in adult women. In contrast, the prevalence of the more severe mental illnesses, schizophrenia and bipolar disorders, is roughly equal in men and women.

Table 2
Sex differences in the prevalence of mental disorders across the life-cycle

<table>
<thead>
<tr>
<th>Life-cycle stage</th>
<th>Mental disorder</th>
<th>Male:female difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood</td>
<td>Pervasive developmental disorder</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td></td>
<td>Attention deficient hyperactivity disorder (ADHD)</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td></td>
<td>Conduct disorders</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td></td>
<td>Learning disability</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td>Adolescence</td>
<td>Depression</td>
<td>Females &gt;&gt; Males</td>
</tr>
<tr>
<td></td>
<td>Deliberate self-harm</td>
<td>Females &gt; Males</td>
</tr>
<tr>
<td></td>
<td>Eating disorders</td>
<td>Females &gt;&gt; Males</td>
</tr>
<tr>
<td></td>
<td>Substance abuse</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td>Adulthood</td>
<td>Depression and anxiety</td>
<td>Females &gt; Males</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia</td>
<td>Males = Females</td>
</tr>
<tr>
<td></td>
<td>Bipolar disorder</td>
<td>Males = Females</td>
</tr>
<tr>
<td></td>
<td>Substance abuse</td>
<td>Males &gt;&gt; Females</td>
</tr>
<tr>
<td>Old age</td>
<td>Dementias</td>
<td>Females &gt; Males</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>Females &gt; Males</td>
</tr>
<tr>
<td></td>
<td>Psychoses</td>
<td>Females &gt;&gt; Males</td>
</tr>
</tbody>
</table>

> prevalence is approximately two- to threefold greater;
> > > greater than a threefold difference in prevalence.

a The difference in old age is likely to be due to the greater longevity of women.
Women are more likely than men to suffer from co-morbid mental disorders, that is to say, the co-existence of more than one mental disorder. Co-morbidity is associated with increased severity of mental illness and disability (Astbury, 2001). Many of the risk factors for poor mental health are related and also co-occur; for example, women living in deprived socio-economic circumstances are more likely to be exposed to intimate partner violence and to be living with men who have substance abuse problems (Pillay, van der Veen & Wassenaar, 2001); these multiple risk factors are, in turn, predictive of high rates of psychiatric co-morbidity.

What is known about sex and gender influences on three mental health disorders that show significant, cross-cultural male:female differences, namely, depression, alcohol use disorders and eating disorders is reviewed below. These conditions have been singled out here not only because to date they are, relatively speaking, the best researched, but because globally, depression and alcohol use disorders are among the leading causes of ill-health and disability, while collectively eating disorders represent a growing mental health problem in many developing countries. The differences between men and women in suicidal behaviours are also described and some of the possible gender influences on the known risk factors for completed and attempted suicide briefly explored.

Focusing our discussion on those mental health issues that exhibit marked prevalence differentials between men and women, is not to imply that gender influences are not important for those disorders which do not have significant male:female differences, such as schizophrenia and bipolar disorders. Gender has profound implications for many other aspects of mental health disorders, such as the impact on sufferers and their families, the burden of care (which most frequently falls on women), and the stigma associated with mental health problems (again often greatest for women). Such issues are considered in the context of the more commonly-occurring disorders that are reviewed below. Throughout, a number of specific studies have been singled out and described in more depth as they demonstrate the influence of gender on various aspects of mental disorders, as well as providing examples of "good practice" in terms of the investigation of gender issues in mental health research. These are presented as a series of inset boxes.

**Suicidal behaviour**

Nearly one million people die each year as a result of suicide, approximately the same number as those who die as a result of homicide and war-related injuries combined. Globally, more men (509,000 in 2000) than women (305,000 in 2000) take their own lives (WHO, 2002). This equates to about three male suicides for every female one, a pattern that occurs fairly consistently across all age groups, with the exception of advanced old age (> 75 years) where the male:female ratio is even higher.

Generally speaking, rates of suicide tend to increase in both men and women with age, such that, overall, rates among those aged 75 years and over are approximately three times
those aged 15-24 years. Although rates of suicide are higher in older persons, the absolute number of suicides is in fact greater in those under 45 years of age compared with those over 45 years for both men and women (WHO, 2002).

Individual countries vary considerably in their rates of suicide. The highest rates tend to occur in eastern European countries and the lowest rates in Latin American countries and in some countries in Asia. The male:female ratio in the suicide rate ranges from roughly equal (e.g. as in China, the Philippines and Singapore) to around 6:1 in several countries of the former Soviet Union (e.g. Belarus, Lithuania), reaching as high as 8.1:1 in Chile and even 10.4:1 in Puerto Rico (WHO, 2002).

A wide range of factors shape an individual’s risk for suicide. Key risk factors for suicidal behaviour include the presence of mental disorders (especially depression and alcohol abuse), cultural factors (for example, religious beliefs) and social and economic factors (such as poverty and partner violence). Male:female differences in the rates of exposure to, and in the impact of, these risk factors are likely to account for at least some of the observed differences in suicide rates between men and women. However, in many cases, these risk factors interact with one another in complex ways, which makes it difficult to unravel the precise roles played by sex and gender as determinants of suicidal behaviours.

The male excess for completed suicide has been partly attributed to the use of more lethal methods of attempting suicide by men, for example guns. Women, in contrast, tend to opt for "softer", less lethal means, such as pills and cutting. In some cultures at least, this is a factor which is likely to be heavily influenced by gender, given the greater acceptability in some countries for men to carry guns compared with women (WHO, 2001b).

Several studies have reported increased rates of suicide, particularly among men during periods of economic recession and high unemployment. The introduction of economic reforms and concomitant sharp increase in unemployment have been linked a rise in all-cause mortality in men in a number of countries in eastern Europe, including some of the former members of the Soviet Union (the so called "mortality crisis"). Moreover, male suicide rates are now over three times as high as those of men in most western European countries. There has also been a noticeable widening of the male:female gap in life expectancy, and across the eastern European countries male suicides currently outnumber female suicides by factors ranging from two to over six. The trends in life expectancy and gender gaps across the region appear to parallel those in the pace of economic reform, in that the fast reformers (who had shallower economic difficulties and recovered from economic instability more quickly) are showing signs of returning to pre-transition levels of life expectancy and narrower male:female gaps (Men et al., 2003).

It is likely that the differential impact on men and women of the rapid economic transition in eastern Europe, which includes increasing poverty and unemployment, is linked to gendered differences in social roles
and expectations. Men who are faced with unemployment and economic crises in societies where their primary role is that of breadwinner (and the primary role of women is that of homemaker) are probably at greater risk for suicidal behaviour. The increase in all-cause mortality is most likely linked to the fact that men tend to cope with difficult life events by smoking, drinking, and generally undertaking other risk-taking behaviours that can lead to injuries, even death, because these are more generally accepted behaviours for men. High rates of suicide among farmers in India have also been associated with economic pressures (Sundar, 1999).

Elsewhere, there is evidence that women are outnumbering men in rates of completed suicide, most notably in China. In China, rapid social change and its associated impacts on interpersonal networks and social identity, has been identified as one of the major causes of the rise in suicide rates, especially among the rural population (Phillips, Liu & Zhang, 1999). In Pakistan, although men outnumber women in terms of completed suicides, the rates in married women are much higher than those among single women or married men. This finding suggests that for Pakistani women, who have limited autonomy in areas such as education and the choice of their marital partner, marriage is a significant stressor (Khan & Prince, 2003). The lethality of the most commonly-used method of suicide, pesticide ingestion, undoubtly contributes to the female excess in suicide rates in these countries.

In terms of the potential scale of the health problem, the number of fatal suicides is only the tip of the iceberg. Although for most countries data on non-fatal suicides are notoriously unreliable as many cases go undetected and unreported, the number of people who attempt suicide is thought to be at least ten times that who complete suicide. What data are available suggest that non-fatal suicidal behaviour is more prevalent among younger people than in the older age groups. In addition, it appears that rates of attempted suicide are, on average, 2-3 times higher in women than in men (WHO, 2002). Regression analyses of data obtained from a longitudinal study of nearly 10 000 Norwegian adolescents aged 12-20 years revealed a greater likelihood of attempted suicide in persons who had made a previous attempt, were female, were around the age of puberty, had suicidal ideation, consumed alcohol, did not live with both parents or had a low level of self-esteem (Wichstrom, 2000). Recent studies in both developed (Hawton et al., 2003) and developing countries (Pillay, van der Veen & Wassenaar, 2001) show that alcohol abuse by partners and exposure to violence is strongly associated with deliberate self-harm and attempted suicide in women.

**Depression**

The female excess for depression has been demonstrated in most community-based studies in all the regions of the world (Mumford et al., 1996; Almeida-Filho et al., 1997; Patel et al., 1999). The considerable cross-cultural variability in the magnitude of the male:female ratio in prevalence rates for depression does call into question any over simplistic biological or hormonal explanations for the
female excess, since few biological parameters show this degree of variation. Greater exposure to stressors, such as negative life events, a recognized risk factor for depression, has been proposed as being part of the explanation for the female excess in the risk for depression. Women are also far more likely to be denied educational and occupational opportunities, a gender gap that is especially evident in developing countries (UNDP, 2002). The limitation of opportunities means that women typically have fewer options when faced with economic and social difficulties in their lives, which in turn can lead to a greater likelihood of adverse mental health consequences of negative life events.

There is growing evidence of an association between economic difficulties and an increased risk for depression (Patel & Kleinman, 2003); the social gradient in wealth is heavily gendered, with women being disproportionately affected by the burden of poverty which, in turn, may influence their vulnerability to depression. Women are also far more likely than men to be victims of violence, a factor that is also linked to an increased risk for depression. For instance, several studies have shown that women who have experienced physical violence by an intimate partner are significantly more likely to suffer depression, abuse drugs or attempt suicide (WHO, 2002; Patel, Rodrigues & de Souza, 2002). Following rape, one in three women develop post-traumatic stress disorder and depression (Astbury, 2001). Furthermore, women who were sexually abused as children are significantly more likely to suffer depression in adulthood; sexual and other forms of violence in youth are associated with depression in adolescence (Astbury, 2001; Patel & Andrew, 2001).

A study in Ghana reported that the most important health concern among women who were interviewed about their perception of their own health status was "thinking too much", an idiom that is widely associated with depression in southern Africa (Patel, Simunyu & Gwanzura, 1995). The explanations given for "thinking too much" were heavy workloads, financial insecurity and the burden of caring for children, all factors which are heavily gendered in their distribution (Avotri & Walters, 1999). Indeed, as a result of these gendered stressors it has been said, "... it is not surprising that the health of so many women is compromised from time to time. Rather, what is more surprising is that stress-related health problems do not affect more women." (Dennerstein, Astbury & Morse, 1993).

A number of recent epidemiological studies have explored the relationships between specific gender-linked risk factors, such as partner violence and stressful life events and the prevalence of depression in a variety of settings. A study involving women living in low-income townships of Harare, Zimbabwe, for instance, found that high rates of depression were most closely associated with severe adverse life events, particularly those involving humiliation and entrapment. These findings, which are outlined in more detail in Box 2, see next page, highlight the impact of the inequities experienced by women – in terms of their opportunities and rights in the face of difficult life events – on their mental health status.
**Box 2**

**Life events and difficulties and the onset of depression among women in a low-income urban setting in Zimbabwe**

Broadhead & Abas, 1998

The work of Broadhead & Abas (1998) on the social origins of depression among women residing in townships of Harare, Zimbabwe provides an important contribution to our understanding of the role of life difficulties in the etiology of depression. In this study 172 women were subjected to a current state examination and a structured psychiatric diagnostic interview. The severity of life events and difficulties experienced by individuals in the study group was assessed according to the Bedford Life Events and Difficulties Scale (LEDS).

These authors found that nearly 31% of the women who participated in the study had a current episode of depression or anxiety. Nearly one fifth (18%) were suffering from a depressive disorder, a prevalence rate that is twice that found in Camberwell, a deprived inner London district thought to have a relatively high rate of depression. More detailed investigation using the LEDS measure revealed that 54% of the women in Harare had suffered from a severe life event in the preceding 12 months compared with only 31% in Camberwell.

It was noticeable that among the Harare study group a high proportion of the severe life events involved humiliation and/or entrapment, typically due to marital crises (such as being deserted with several children), premature death, illness in family members and severe financial difficulties in the absence of an adequate welfare safety net. The study confirmed the importance of the role of severe life events and long-term difficulties as determinants of depression, and concluded that the increased prevalence of depression among the women of Harare could be accounted for by their increased exposure to severe life events and major difficulties. Many of these adverse life experiences were rooted in the gendered discrimination of women within the context of intimate relationships.
Various studies on maternal depression conducted in south Asia have demonstrated that both partner violence and the culturally-determined value placed on boys (as compared with girls) influence maternal mental health. In particular, three cohort studies from India and Pakistan have reported a greater risk for post-natal depression in mothers who have a girl child, especially if the desired sex was a boy or if the mother already had living girl children (Patel, Rodrigues & de Souza, 2001; Chandran et al., 2002; Rahman, Iqbal & Harrington, 2003). The findings of one such study are described in more detail in Box 3, see next page.

**Alcohol use disorders**

As is the case for females and depression, the male excess for alcohol use disorders has been repeatedly demonstrated in numerous community studies from almost every major world region (WHO, 1999). It is probable that the greater risk for alcohol use disorders in men is the result of a combination of a number of psychosocial and biological factors. Drinking and drunkenness are widely perceived to be consistent with gendered notions of masculinity and thus, men who conform to cultural norms are more likely to consume alcohol regularly. In addition, drinking is considered to be a coping strategy for men when faced with adverse life events, such as unemployment, and/or when they feel unable to live up to societal expectations of being men. As mentioned previously, the association of masculinity with drinking, in particular the use of alcohol by men as a means of coping with stress brought about by economic pressures has been shown to be a key factor behind the rising toll of alcohol-related premature mortality among men in eastern Europe (see section 3.1).

The differential between men and women in their incidence of alcohol use disorders tends to be greatest in the developing countries. Here, perhaps more so than in the more developed world, women face stricter social scrutiny about many behaviours, drinking being one of them. Men’s consumption of alcohol transpires in the public realm, whereas women’s more often occurs in private. In many cultures, drinking among men has social connotations; it is a means of forging and maintaining friendships such that refusing a drink can imply a lack of trust and a denial of mutual respect. When taken to the extreme, the intoxication of men is more socially acceptable than that of women; indeed, women often tolerate their male partners’ intoxication as being a “natural” condition of manhood.

In Latin American countries and in the Caribbean, where the male:female gap in alcohol abuse is especially pronounced, gender has been identified as an important determinant of alcohol use disorders (Pyne, Claeson & Correia, 2002). The gendered dimensions of alcohol consumption that are peculiar to this region are discussed further in Box 4, see page 19.

**Eating disorders**

Until fairly recently, eating disorders, notably anorexia and bulimia nervosa, were considered to be a problem that was largely confined to the more highly industrialized nations, to the extent
A group of 270 mothers attending a district general hospital in Goa, India, during the third trimester of their pregnancy were recruited to take part in a cohort study designed to investigate the predictors, prevalence and impact of postnatal depression. Using the Edinburgh Post-natal Depression Scale, administered at 6-8 weeks following the birth, researchers discovered that 23% of mothers were suffering from postnatal depression.

The research explicitly set out to study the relationship between two gender factors, namely, partner violence and sex of the newborn child, and the risk for postnatal depression. Partner violence, both during and before the pregnancy, was found to be strongly associated with postnatal depression. Although a preference for boys is common in India, the overall rate for postnatal depression among the mothers of female infants was only marginally, but not significantly, raised relative to that in mothers of boys. However, the sex of the newborn infant had a powerful effect in modifying the risk associated with other factors, such as intimate partner violence. For example, the risk ratio for depression among women who had suffered partner violence but had given birth to a boy child was 1, whereas it was 3.3 in those who had produced a girl child. Thus it seems likely that the birth of a boy child acts as a protective factor for mothers exposed to other risk factors for depression, such as partner violence. On the other hand, if the newborn was a girl, the risk remained unchanged or became worse.
Gender dimensions of alcohol consumption and alcohol-related problems in Latin America and the Caribbean
Pyne, Claeson & Correia, 2002

This work summarizes the research evidence linking alcohol consumption to various health problems in Latin America and the Caribbean which, as the authors point out, has one of the highest alcohol-related mortality rates in the world. The study sets out to analyse the available evidence with the specific objective of exploring the role of gender in alcohol consumption.

The region is characterized by significantly higher levels of alcohol abuse in men, and the report demonstrates that this is largely linked to gendered roles and expectations in society. In particular, it identifies machismo, i.e. the importance of male bravado and sexuality as a key factor in shaping alcohol consumption, which, although a facet of many cultures, is perhaps especially well recognized in Latin America. The cultural norm is thus one in which young men set out to consume excess alcohol with the deliberate intent of getting drunk; drinking excessively celebrates male courage, sexual prowess, maturity and the ability to take risks, including sexual risks. In concluding, the report identifies a number of alcohol policy options for the region, which include tackling the gender determinants of alcohol abuse.
that some have argued that these disorders are "culture-bound" (Prince, 1985). Eating disorders are characterized by a fear of being overweight (despite the fact that actual weight is in the average or below average range), which can lead to a range of behaviours to reduce weight including severe dieting, self-induced vomiting and excessive exercise.

The evidence for a gender role in such disorders stems from two observations. Firstly, the enormous male:female difference in incidence (females far outnumber men in their rates of both anorexia and bulimia nervosa) and the fact that cultures which have been relatively immune to the media-driven creation of the ideal body image for women, such as India and Fiji, have low rates of these disorders (King & Bhugra, 1989; Becker et al., 2002). The "cult of thinness", propagated by social pressures via the publication of books and magazines advising weight-reducing diets, the fashion industry (which caters mainly for the slimmer figure), and television attaching sexual allure and professional success to the possession of a svelte figure, and which leads to dietary restraint, has been cited as a key reason behind the rise in incidence of eating disorders (Russell, 2000), and its higher prevalence in women.

A study conducted in Fiji, which examined the effect of the introduction of television on eating behaviour in a formerly media-naïve population, has produced some very interesting findings (Becker et al.; 2002). The study reported parallel increases in the rate of disordered eating behaviours and in attitudes favouring thinner body image and self-induced vomiting in young girls (see Box 5, next page). The results of this study add considerable weight to the theory that the emphasis on women's thinness by the media and fashion industries, which are becomingly increasingly homogenized due to globalization, is now leading to a rise in disordered eating behaviours in the less developed world.
Impact of television exposure on eating behaviours and attitudes among ethnic Fijian adolescent girls
Becker et al., 2002

The impact of exposure to television on eating attitudes and behaviours in ethnic Fijian adolescent girls has been the subject of an innovative community-based study conducted by Becker and co-workers. Fiji was selected for this particular study because of its extremely low prevalence of eating disorders; previously there had only been one reported case of anorexia, this in the 1990s. The traditional Fijian attitude to eating has in general supported "robust appetites" and correspondingly "robust bodily shapes", and prior to 1995 the population of the Nadroga province had not been exposed to television.

A prospective, multi-wave cross-sectional study design was used to compare two samples of Fijian schoolgirls (mean age, 17 years), corresponding to before (i.e. the 1995 group) and after (i.e. the 1998 group) prolonged regional television exposure. Eating behaviours were assessed according to a modified 26-item Eating Attitudes Test (EAT-26), supplemented with a semi-structured interview to confirm self-reported symptoms. Key indicators of disordered eating were significantly more prevalent following exposure to television as indicated below:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1995 group</th>
<th>1998 group</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAT-26 &gt; 20</td>
<td>12.7</td>
<td>29.2</td>
</tr>
<tr>
<td>Self-induced vomiting</td>
<td>0</td>
<td>11.5</td>
</tr>
<tr>
<td>Dieting behaviours</td>
<td>_a</td>
<td>69</td>
</tr>
</tbody>
</table>

_Information on dieting was not collected in the 1995 group because it was presumed to be rare_

Narrative data relating to television viewing habits obtained from a subset of 30 purposively sampled respondents exhibiting a range of disordered eating attitudes and behaviours from the exposed 1998 sample were also analysed as part of the investigation. Many subjects expressed interest in weight loss as a means of modelling themselves on television characters; 40% of subjects believed that their career prospects would be enhanced if they were thinner.

This naturalistic experiment suggests that the portrayal of the ideal body size for girls in the media has a marked impact on eating attitudes and behaviours, and is thus likely to account for at least part of the explanation of the female excess in prevalence of eating disorders.
4. Gender issues in access to treatment and care

Despite the enormous disease burden of mental health disorders, resources for mental health in most parts of the world are grossly inadequate. Barely two-thirds of the world's nations have a national mental health policy, and of those that do, the majority of such policies were only formulated as recently as in the 1990s. Around a quarter have no formal mental health legislation, nor a specific mental health budget. One third of countries spend less than 1% of their health budget on mental health. Furthermore, despite the fact that most countries now have an essential medicines policy, around one-fifth do not include the three most commonly prescribed drugs for depression, schizophrenia and epilepsy on their national list of essential medicines (WHO, 2001).

The situation is especially acute in the low-income countries, which typically have very meagre resources indeed for mental health. Out-of-pocket expenses are especially frequent in low-income countries and place an enormous financial burden on the poor. Moreover, the human rights of the mentally ill are often severely compromised, not least in the large mental hospitals which were set up in many developing countries ostensibly as places of healing and care (NHRC, 1999).

Part of the problem can be attributed to the scarcity of mental health specialists. In approximately one half of the countries of the world, there is only one psychiatrist and one psychiatric nurse per 100 000 population; the numbers of psychologists and social workers working in mental health is even lower. Much of the psychiatric care in developing countries is provided through large institutions. In India, for example, more than half of all psychiatric beds are in mental institutions, where a quarter of patients have been resident for more than 15 years and where the standards of care often lack even basic hygiene and medical treatment (NHRC, 1999). Programmes targeting specific groups, such as children or women, are rare.

Against this background, this section reviews what is known about gender differentials in access to treatment and care for mental health disorders. Particular attention is paid to the differences between men and women in the way that they respond to their mental health problems and the differentials in the response of the health system and society to mental illness.

**Diagnosis and treatment**

According to a WHO-sponsored study, there are no differences between men and women in the detection of depression and anxiety disorders in a general health care setting; in other words men and women suffering from depression are equally likely to be diagnosed as such (Gater et al., 1998). In developed countries,
where prescribing behaviour and outcome are relatively well documented, female sex has been found to be a significant predictor of being prescribed psychotropic drugs for depression (Astbury, 2001). In contrast, in developing countries, persons with depression tend to be treated with a range of symptomatic medicines, such as analgesics for aches and pains, "tonics" and vitamin injections for fatigue and tiredness, and sleeping pills for insomnia (Patel et al., 2001). A multinational WHO study of psychotropic drug prescriptions in general health care reported that more than 80% of prescriptions in some centres in developing countries were for drugs of doubtful efficacy; hypnotics accounted for a significant proportion of these drugs (Linden et al., 1999). Anecdotal evidence from developing countries also indicates that women who are depressed are often prescribed sleeping pills and vitamins.

Help-seeking behaviour for alcohol use disorders is rare in both sexes, albeit for different reasons. The greater social acceptability of men’s drinking means that men are less likely to see their drinking as a problem. Because of the stigmas associated with their drinking, women are more likely to drink in secret and are thus unlikely to admit to having a problem, even when challenged by a health worker. On the other hand, when consulting a primary care provider, women are more likely than men to admit to emotional complaints and men are more likely than women to disclose an alcohol problem. In short, health-care seeking behaviour patterns in men and women reflect gender-based expectations regarding the perceived differences in vulnerability to depression and alcohol use disorders, as well as a reluctance on the part of men to seek help for depression and on the part of women to seek help for alcohol-related problems (Astbury, 2001).

**Care of the mentally ill**

Societal responses to mental illness show clear gendered differences, with greater stigma and rejection being evident in many parts of the world in the event of a woman suffering from mental illness. Although a finding common to many studies, a piece of ethnographic research from India shows this to be the case particularly well (see Box 6, next page).

Mental illness in women not only attracts a greater amount of shame and dishonour, but also tends to have a more profound impact on family life, largely because of the woman’s pivotal role in the running of the household (Patel & Oomman, 1999). Although the stigma associated with mental disorders often leads to a suppression of the acknowledgement of the experience of mental disorders in both women and men (i.e. a denial that symptoms are due to mental illness, citing instead a spiritual or religious origin), this is less likely to be the case for women. Whereas a mentally ill man may get married, mentally ill women are often left alone.

Several studies, again from India, have sought to investigate the differentials in the fate of mentally ill men and women. Typically, when a woman becomes ill, her own family becomes responsible for her care (SCARF, 1998). Whereas wives are generally expected to be the primary carers should their husbands become mentally ill, married women who
In this ethnographic study, Skultans examines the way in which mentally ill patients are treated at the Mahanubhav temple at Phaltan in the province of Maharashtra, India. The temple functions both as a religious sanctuary and as an asylum. Most of the supplicants come for healing on a daily basis but a few (around 30) become residents. Residential patients are often accompanied by their relatives. The author notes that no medical input and no medical diagnoses are made, but from the case material presented it seems that some of the residents have fairly severe chronic schizophrenia while others appear to be suffering from short-lived psychiatric disorders or family problems.

There is no symptom-based description of madness in Maharashtrian society, only a stereotyped picture of madness consisting of three key behavioural elements which relate to family life: the tearing off of clothes, violence towards other family members, and a lack of attention and an irreverence towards the preparations and consumption of food. These three elements are severely condemned in women who are supposed to be modest at all times. Such behaviour is seen as inviting sexual exploitation and can cause much distress, particularly within the families of younger women. Much of women’s social role concerns the presentation of food and mental affliction in women in Maharashtrian society manifests itself as withdrawal of support and services to the family. Notably, the author found that the inferior position of women in Indian society and her precarious status in her husband’s family was exaggerated when she became mentally ill. Thus, one reason for the finding that more women sought help alone is likely to be the shame attached to their mental illness.

Among the men, the beating of wives and mothers, absconding, and physical destruction of the home were the types of behaviours that had led families to bring their ill members to the temple. Therapy takes the form of prayer and the induction of trance states or hajeri. Trancing was more often successful for women than for men who were usually the more severely mentally ill.
become mentally ill are either sent back to their parental homes, deserted or divorced (Davar, 1999). A study of mentally disabled women in India, all of whom had separated from their husbands, revealed that most returned to their parental homes. However, levels of anxiety among the women’s family members was considerable (SCARF, 1998). The lack of any form of maintenance from former husbands, many of who subsequently remarried, served only to exacerbate the burden experienced by the carer family. The negative attitudes of the husband, and especially the in-laws, were frequently cited as major contributors to the breakdown of the marriage.

The gendered burden of care has also been vividly demonstrated by a series of multinational studies carried out by the 10/66 Dementia Research Network (in press). These studies have shown that irrespective of the sex of the person with dementia, the primary care-giver is almost always a female relative. These studies have also revealed the significant burden associated with caring for the mentally ill and its impact on the health of the carer.

Gender factors, especially those associated with the social expectations of the respective roles of men and women, can also affect the severity of the outcome and the impact of mental illness for an individual. For instance, where differences between men and women in the outcome of severe mental disorders, such as schizophrenia, have been found, they usually show a more favourable outcome for women (Thara, Padmavati & Nagaswami, 1993; Jablensky et al., 1992). This is likely, at least in part, to be a result of the differences in the social and occupational roles expected of men and women; the fact that home-making skills are generally more highly developed in women may help to account for the finding that women with severe mental disorders are better at coping with the disability associated with these disorders than are men (Astbury, 2001).
The existing evidence for gender influences in mental health reviewed in the preceding sections can be summarized as follows:

- For many mental health disorders there are male:female differences in prevalence rates; in adults the differences are most apparent for alcohol use disorders (male excess), depression (female excess) and eating disorders (female excess).

- In the case of the most commonly-occurring mental health problems, namely depression and alcohol use disorders, gender variables play a significant role in explaining the difference in prevalence between men and women. Gender is also a powerful determinant of eating disorders.

- Even for disorders without a significant male:female difference in prevalence, such as schizophrenia, gender plays a key role in shaping the outcome and impact of these disorders.

- Gender is a determinant of health-seeking behaviour for several mental disorders. It also shapes the level and type of care that an affected person receives and the stigma they experience, and influences the position he or she occupies in their natal or married family.

- Gender can influence the detection and diagnosis of mental health disorders, the access to appropriate health services, and possibly also the responses of the health system to such disorders (Astbury, 2001).

- Gender is an important determinant of suicide; gender-linked factors account for the differences in rates of completed and attempted suicide between men and women, and are also associated with male:female differences in changes in suicide rates with time.

The evidence base for the role of gender in the etiology of mental health disorders is still largely limited to an examination of the male:female differences in prevalence rates. While the presence (or absence) of these differences does not necessarily imply a role (or lack of) for gender factors, they are an essential first step in the evaluation of epidemiological evidence from a gender perspective. Thus, all data on the prevalence, incidence, outcome, health-seeking patterns, health system response and controlled trial evidence should be disaggregated by sex. Differences between the sexes may provide the first clue that gender is an issue that needs be considered when interpreting the findings.

Decision-making latitude, autonomy and the ability to exercise control over one’s life and in one’s work are
all likely to be critical determinants of mental health. However, there is an urgent need to generate more systematic evidence on the role of these and other gendered factors to explain the etiology, prevalence, health service responses, and outcomes of mental disorders, as indicated in Table 3. If gender considerations are to be integrated into mental health research there is a need to develop gender-sensitive measures, especially with regard to the traditional socioeconomic determinants. It is not enough to use standard gender blind measures of income, for example, when examining the nature and impact of poverty on women’s mental health. The issue is not simply one of how much money comes into a household, but rather whether a woman has access to household income and is able to exercise any control over how it is spent. Such factors, among others, are the important concerns here, and need to be researched if the social position of women in terms of a gendered social gradient in mental health is to be fully understood.

Table 3
Gender determinants in the study of selected mental health disorders

<table>
<thead>
<tr>
<th>Gender determinants in the study of depression</th>
<th>Gender determinants in the study of alcohol use disorders (AUD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence (intimate partner; childhood; other persons)</td>
<td>Attitudes towards drinking (of parents, of self, of other family members)</td>
</tr>
<tr>
<td>Workload</td>
<td>Coping mechanisms when under stress</td>
</tr>
<tr>
<td>Restrictions on activities of daily living and social networks</td>
<td>Drinking patterns (such as whether drinking is done socially, with friends of a particular sex or with persons of both sexes)</td>
</tr>
<tr>
<td>Support from the marital partner and family relatives</td>
<td>How drinking was initiated</td>
</tr>
<tr>
<td>Experience of economic difficulties</td>
<td>Impact on health, education and nutritional outcomes of children and spouse of a person who has AUD</td>
</tr>
<tr>
<td>Restrictions on accessing appropriate health care</td>
<td>Reasons for delaying/not seeking health care</td>
</tr>
</tbody>
</table>
In an ideal world, the gender perspective should be invoked to drive and shape research. For example, the role of gender in the experience of stigma associated with mental disorders and its impact on clinical presentations and help-seeking behaviour are important research questions that need to be addressed. Qualitative research methods offer a powerful tool for exploring the experience of mental illness from the perspective of the individual and provide ample scope for a thorough exploration of gender variables.

Efforts should also be directed at addressing the current gender imbalance in the number, and also in the career progression, of mental health professionals. A study from the United Kingdom of Great Britain and Northern Ireland reported that women are significantly less likely to pursue an academic career in psychiatry, and that, within academic posts, are much less likely to occupy a professorial position than men (Killaspy et al., 2003). A study of a batch of medical graduates recruited before they took up psychiatric residency in the United States of America (USA), found differences between the male and female graduates in their marital status; compared with their male counterparts, a greater number of female graduates had never married or were divorced. Furthermore, there was evidence of a divergence in professional activities, with women spending more time in teaching and less in publishing peer-reviewed papers (Reiser et al., 1993).

Much could be gained if mental health researchers were able to grasp the tremendous opportunities available to them by aligning themselves with other public health research programmes that have an emphasis on gender issues and vice versa. That is to say, if researchers working on gender and health issues were more aware of the powerful linkages with mental health, then a much more complete and holistic picture of health could be achieved by integrating mental health concerns in their study designs to the mutual benefit of all. The area of maternal and reproductive health, one of the Millennium Development Goals (World Bank, 2004), provides no better example of the potential offered by adopting such an approach. The numerous areas of intersection of reproductive and mental health, which includes postnatal depression, rape, adverse maternal outcomes such as stillbirths and miscarriage, infertility, surgery on the reproductive organs, sterilization, adolescent reproductive and sexual health, HIV/AIDS, gynecological morbidities and menstrual health (Patel & Oomman, 1999) offer ample scope for collaborative mental and gender-based health programmes. The growing global concern regarding violence in families and communities, a significant proportion of which is fuelled by alcohol abuse, similarly provides an opportunity for researchers on substance abuse to integrate gender into their work (WHO, 2002). These topics represent the largest research programmes in most developing countries and the integration of mental health into these programmes should be a priority for future research in these areas.

Whereas the links between women’s reproductive and sexual health, and their mental health, has received some attention in recent years (notably in areas such as maternal health, gynaecological morbidities
and menstrual disorders), there is far less research on such issues in relation to men’s health. There is some evidence that men’s sexual health is closely associated with psychosomatic disorders and that these are profoundly influenced by gendered notions of masculinity. In this respect, the Dhat syndrome, described in young men in south and south-east Asia (Malhorta & Wig, 1975), provides an excellent case to point. This syndrome is characterized by a range of psychosomatic complaints, typically attributed to loss of semen through masturbation or non-sexual routes and has been linked to unsafe sexual behaviours because of beliefs regarding the appropriate circumstance in which semen should be discharged (Lakhani, Gandhi & Collumbien, 2001). There is also some evidence to suggest that men’s mental health is affected by becoming a parent (Lovestone & Kumar, 1993). A recent cohort study has demonstrated that first-time fathers experience more stress during the period when their partners are pregnant than during the postnatal period (Condon, Boyce & Corkindale, 2004). However, apart from these few studies, there has been little systematic research on gender, men’s reproductive and sexual health and mental health.
6. Conclusion

The present review of gender influences on mental health disorders indicates that there is a clear need for research in this area to move towards a more gender-sensitive model. Although we have a reasonable appreciation of how gender factors shape the male:female differentials in the prevalence rates of some of the common mental health disorders, such as depression and alcohol abuse, much less is known about how sex and gender factors interact to influence help-seeking behaviours, treatment and care, impact and outcome of mental health disorders.

Specific recommendations for future research can be summarized as follows:

- Research should include both men and women as subjects. If this is not the case, researchers need to explain the reasons for the exclusion of men or women.

- Results should be reported disaggregated by sex; the influence of sex on participation, continuation and drop-out rates must also be reported.

- Gender factors should be measured a priori on the basis of their hypothesized role in the causation, course, treatment-seeking patterns, attitudes towards, treatment effectiveness, impact and outcome of mental disorders.

- The impact of other exposures, such as socioeconomic variables, on mental illness should be examined differentially for men and women, and should be critically analysed with a gendered perspective.

- Researchers working in the other aspects of gender and health should acknowledge the influence of gender factors on the mental health of men and women, and include measures of mental health in their research.
7. References


Avotri JY, Walters V (1999). "You just look at our work and see if you have any freedom on earth": Ghanaian women’s accounts of their work and health. Social Science and Medicine, 48:1123-1133.


Harvard School of Public Health.


8. Additional resources

The following reports and documents may be of further interest to readers:

